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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,486	12/22/2000	Daniel Grobe Sachs	042390.P10420	8985

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John P. Ward  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
Seventh Floor  
12400 Wilshire Boulevard  
Los Angeles, CA 90025-1026

EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 06/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/746,486

Applicant(s)

SACHS ET AL.

Examiner

Toan D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 6, 8-11, 16, 18-21 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Pauls (U.S. Patent 5,983,382).

For claim 1, Pauls discloses automatic retransmission query (ARQ) with inner code for generating multiple provisional decodings of a data packet, comprising:

applying a forward error correction code to a group of data packets to create a coded group of packets by supplementing a set of parity packets to the group of data packets (figure 1, col. 4 lines 60-65);

transmitting the data packets, and transmitting a set of corresponding parity packets after the data packets have been sent (col. 4 lines 60-65);

receiving a positive acknowledgement signal (figure 4, col. 7 lines 11-16);

in response to receiving the acknowledgement, ceasing to send additional parity packets (figure 4, col. 7 lines 11-16); and

in response to not receiving the acknowledgment, continuing to transmit the parity packets (figure 4, col. 7 lines 34-41).

For claims 6 and 16, Pauls discloses wherein the applying a forward error correction code includes applying a Reed-Solomon code to the data packets (col. 4 lines 60-65).

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For claims 8, 18 and 27, Pauls discloses wherein transmitting the group of packets includes interleaving and transmitting a second and separate group of data packets (figure 3, col. 6 lines 52-54).

For claims 9 and 19, Pauls discloses wherein the receiver sends multiple acknowledgement signals for a group of packets (figure 4, col. 7 lines 11-16).

For claims 10 and 20, further includes manipulating the number of parity packets in response to data included in the acknowledgement (col. 4 lines 61-65).

For claim 11, the claim is directed to the same subject matter as in claim 1. Therefore, it is subject to the same rejection.

For claim 21, Pauls discloses automatic retransmission query (ARQ) with inner code for generating multiple provisional decodings of a data packet, comprising:

an encoder to apply a forward error correction code to a group of data packets to create a coded group of packets by supplementing a set of parity packets to the group of data packets (figure 1, col. 4 lines 32-35, and col. 4 lines 60-65);

a transmitter to transmit the data packets to a receiver over a network, and transmit a set of corresponding parity packets (figure 1, col. 4 lines 60-61);

a receiver to receive a positive acknowledgement signal, wherein in response to receiving the acknowledgement, the transmitter ceases to send additional parity packets, and in response to not receiving the acknowledgment, continuing to transmit the parity packets (figures 2 and 4, col. 7 lines 11-16 and col. 7 lines 34-41).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-3, 5, 7, 12-13, 15, 17, 22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauls (U.S. Patent 5,983,382) in view of Luby (U.S. Patent 6,307,487 B1).

For claims 2-3, 5 and 7, Pauls does not disclose the claimed invention. In an analogous art, Luby discloses wherein the data packets include multi-media data packets, and the transmitting includes transmitting over a wireless network (figure 23, col. 8 line 64 to col. 9 line 5, and col. 28 lines 53-56 as set forth in claim 2); wherein transmitting the multi-media data packets includes multi-media streaming over an Internet Protocol (IP) network (col. 3 lines 9-10 as set forth in claim 3); wherein the multi-media streaming includes suppressing physical layer acknowledgements via multicasting IP addresses (col. 1 lines 54-57 as set forth in claim 5); and

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wherein the applying a forward error correction code includes applying a Tornado code to the data packets (col. 3 line 60 as set forth in claim 7).

One skilled in the art would have recognized data packets include multi-media data packets to use the teachings of Luby in the system of Pauls. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the data packets include multi-media data packets as taught by Luby in Pauls' system with the motivation being to use chain reaction coding, the application-specific parameters, such as the input symbol size (col. 9 lines 9-10).

For claims 12, 13, 15 and 17, the claims are directed to the same subject matter as in claims 2-3, 5 and 7. Therefore, they are subject to the same rejection.

For claims 22, 25 and 26, the claims are directed to the same subject matter as in claims 3, 5 and 7. Therefore, they are subject to the same rejection.

6. Claims 4, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauls (U.S. Patent 5,983,382) in view of Luby (U.S. Patent 6,307,487 B1) further in view of Brown et al. (U.S. Patent 6,366,622 B1).

For claims 4, 14 and 23, Pauls in view of Luby does not disclose the claimed invention. In an analogous art, Brown et al. disclose wherein the multi-media streaming includes streaming via IEEE 802.11 standard over a wireless network (col. 3 line 12, as set forth in claims 4, 14 and 23). One skilled in the art would have recognized IEEE 802.11 standard over a wireless network to use the teachings of Brown et al. to the system of Pauls. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the IEEE 802.11 standard

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over a wireless network as taught by Brown et al. in Pauls' system with the motivation being to provide a wireless communications standard (col. 3 lines 11-13).

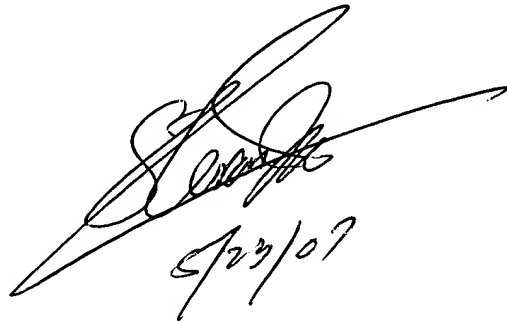
***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

TN  
T.N.



Handwritten signature and date 5/23/07